PROPOSED RULE 1426 - EMISSIONS FROM METAL FINISHING OPERATIONS

(a) Applicability

This rule shall apply to the owner or operator of any facility performing chromium nickel, cadmium, lead or copper electroplating operations, or chromic acid anodizing. This rule shall also apply to the owner or operator of any facility with process tanks containing sulfuric acid, nitric acid, hydrochloric acid, chromic acid (excluding chromic acid used in electroplating and anodizing tanks), and sodium hydroxide used in spraying operations, associated with above electroplating or anodizing operations.

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) ADD-ON AIR POLLUTION CONTROL EQUIPMENT means equipment installed for the purpose of collecting and containing emissions from nickel, cadmium, lead, or copper electroplating tanks and associated process tanks.

(2) AMPERE-HOURS means the integral of electrical current applied to a plating tank (amperes) over a period of time (hours).

(3) ELECTROPLATING BATH means the electrolytic solution used as the conducting medium in which the flow of current is accompanied by movement of metal ions for the purpose of electroplating metal out of the solution onto a workpiece or for oxidizing the base material.

(4) ENCLOSED STORAGE AREA is any space or structure used to contain material that prevents its contents from being emitted into the atmosphere.

(5) FUGITIVE DUST means any solid particulate matter that becomes airborne by natural or man-made activities, excluding particulate matter emitted from an exhaust stack. Fugitive dust includes material containing hexavalent chromium, nickel, cadmium, lead, and copper.

(6) METAL PLATING FACILITY means, for the purpose of this rule, a facility which performs electroplating of chromium, nickel, cadmium, lead or copper, or chromic acid anodizing.

(7) PROCESS TANK means any tank associated with a chromium, nickel, cadmium, lead or copper electroplating operation, or a chromic acid anodizing operation, excluding rinse and dragout tanks.

(8) SENSITIVE RECEPTOR LOCATIONS include schools (kindergarten through grade 12), licensed daycare centers, hospitals and convalescent homes.

(9) STALAGMOMETER means a device used to measure the surface tension of a solution by determining the number of drops, or the weight of each drop, in a given volume of liquid.

(10) SURFACE TENSION means the property, due to molecular forces, that exists in the surface film of all liquids and tends to prevent liquid from spreading.

(11) TENSIOMETER means a device used to measure the surface tension of a solution by measuring the force necessary to pull a filament or ring from the surface of a liquid.

(c) Requirements

(1) Initial Compliance Report

The owner or operator of a metal plating facility subject to this rule shall submit an initial compliance report to the Executive Officer by February 1, 2004 to report process and receptor information. The report shall contain the information identified in Appendix 1.

(2) Compliance Report

The owner or operator of a metal plating facility subject to this rule shall submit a report to the Executive Officer by February 1, 2005 to report information on process activity and significant changes since the initial report was filed. The report shall contain the information identified in Appendix 2.

(3) Data Collection

The owner or operator of a metal plating facility subject to this rule shall begin collecting data required under subparagraphs (c)(1) and (c)(2) within *(60 days after date of adoption)*.

(4) Air Sparging of Tanks Containing Chromic Acid

Tanks containing chromic acid shall not be air sparged when the tank is not in use, and shall only be air sparged up to one hour prior to parts being placed in the tank, and one hour after parts are removed from the tank.

(5) Housekeeping Practices for Nickel, Cadmium, Lead and Copper

On and after *(60 days from date of adoption)*, housekeeping practices shall be implemented at a facility to reduce fugitive emissions caused by the storage, handling and transport of nickel, cadmium, lead and copper in powder or metal salt form. These practices shall include:

(A) Nickel, cadmium, lead and copper in powder or metal salt form shall be stored in a closed container in an enclosed storage area;

(B) Nickel, cadmium, lead and copper in powder or metal salt form shall be transported from an enclosed storage area to electroplating tanks in a closed container;

(C) Surfaces within the enclosed storage area that accumulate dust shall be washed down, vacuumed, or wet mopped, or shall be maintained with the use of non-toxic chemical dust suppressants; and

(D) Wastes which contain nickel, cadmium, lead or copper generated from housekeeping activities shall be stored, disposed of, recovered, or recycled using practices that do not lead to fugitive dust.

(d) Inspection and Maintenance Requirements

(1) The owner or operator of a nickel, cadmium, lead, or copper electroplating operation using add-on air pollution control equipment shall comply with the manufacturers recommended schedule for inspecting and maintaining control equipment. If the inspection frequency is not specified by the manufacturer, recommended inspection and maintenance activities shall be conducted at least once per quarter.

(e) Recordkeeping

(1) Monitoring Data Records

The owner or operator shall maintain records of all required monitoring data including the date the data are collected.

(A) Cumulative Rectifier Usage Records

The owner or operator of electroplating operations with dedicated ampere*hour meters shall record the actual cumulative rectifier usage for each calendar month, and the total for each calendar year.

(2) Housekeeping Measures

The owner or operator shall maintain records demonstrating compliance with housekeeping practices, as required by paragraph (c)(5), including the name of the person performing specified activities, the dates on which specific activities were completed, and records showing that wastes containing chromium, nickel, cadmium, lead or copper have been stored, disposed of, recovered, or recycled.

(3) Records Retention

All records shall be maintained for at least five years; at least the two most current years shall be kept on site.

(f) Rule 1402 Inventory Requirements

The owner or operator of a facility that is in compliance with this rule will not be required to submit an emission inventory to the Executive Officer for emissions of toxic compounds subject to this rule, pursuant to subparagraph (n)(1)(B) of Rule 1402 - Control of Toxic Air Contaminants from Existing Sources.

Appendix 1 - Content of Initial Compliance Report

Initial compliance reports shall contain the following information:

1. Facility name, SCAQMD ID number, facility address, owner or operator name, and contact telephone number;
2. A description of the process performed in each affected plating or process tank;
3. The purchase records for nickel used in nickel electroplating operations for the preceding 12 months. The information should include the total metallic nickel purchased (in lbs/yr), and the typical nickel content in purchased plating solutions used for nickel sulfate, nickel chloride, nickel sulfamate and other types of nickel plating operations. Indicate the nickel in inventory at the beginning of the reporting period and the nickel remaining in inventory at the end of the reporting period;
4. The purchase records for cadmium used in cadmium electroplating operations for the preceding 12 months. The information should include the total cadmium purchased (in lbs/yr), and the typical cadmium content in purchased plating solutions used for cadmium cyanide, cadmium sulfate, and other types of cadmium plating operations. Indicate the cadmium in inventory at the beginning of the reporting period and the cadmium remaining in inventory at the end of the reporting period;
5. The purchase records for lead used in lead electroplating operations for the preceding 12 months. The information should include the total lead purchased (in lbs/yr), and the typical lead content in purchased plating solutions used for lead sulfamate, lead acetate, and other types of lead plating operations. Indicate the lead in inventory at the beginning of the reporting period and the lead remaining in inventory at the end of the reporting period;
6. The purchase records for copper used in copper electroplating operations for the preceding 12 months. The information should include the total copper purchased (in lbs/yr), and the typical copper content in purchased plating solutions used for all cuprous and cupric plating operations. Indicate the copper in inventory at the beginning of the reporting period and the copper remaining in inventory at the end of the reporting period;

7. For each nickel, cadmium, lead, or copper electroplating tank, the surface area of the tank, (ft^2), volume of the tank (ft^3), and typical bath concentrations of nickel, cadmium, lead, or copper (wt.% or oz./gal, typical operating range acceptable);
8. For each nickel, cadmium, lead, or copper electroplating tank, the control equipment which serves it (permit number), and a copy of the most recent performance test conducted to demonstrate compliance with a permit condition or control equipment efficiency, if applicable;
9. For each rectifier with a dedicated ampere*hour meter used at a nickel, cadmium, lead or copper electroplating tank, at least the most recent four months of operating data (ampere*hours);
10. For each process tank (excluding rinse and dragout tanks) associated with an electroplating process that contains sulfuric acid, nitric acid, hydrochloric acid or chromic acid (excluding chromic acid in electroplating tanks), the tank designation, the surface area of the tank, (ft^2), volume of the tank (ft^3), concentration of sulfuric acid, nitric acid, hydrochloric acid or chromic acid (wt% or oz/gal, typical operating range acceptable), and identification of air pollution control equipment (per mit number), if applicable;
11. For each process tank containing sodium hydroxide used in a spraying operation, the concentration of NaOH in the tank in percent by weight, the spray rate of the NaOH spray system in gallons per minute, and the hours of operation per month;
12. The distance to the nearest commercial/industrial building, measured as indicated in Table A-1;
13. The distance to the nearest residence, measured as indicated in Table A-1;
14. The distance(s) to all sensitive receptor locations within one-quarter of a mile from the facility, measured as indicated in Table A-1;
15. The name, title and signature of the responsible company official certifying the accuracy of the reported information; and,
16. Date of the report.

Table A-1
Measuring Receptor Distance

Source Type	Measure From:	Measure To:
Point Source, Single Stack	Stack	Property Line of Nearest Receptor
Point Source, Multiple Stacks	Centroid of Stacks	Property Line of Nearest Receptor
Volume Source No Stack	Center of Building	Property Line of Nearest Receptor

Appendix 2 - Content of Compliance Report

Compliance reports shall contain the following information:

1. Facility name, SCAQMD ID number, facility address, owner or operator name, and contact telephone number;
2. The beginning and ending dates of the reporting period;
3. The purchase records for nickel used in nickel electroplating operations for the preceding 12 months. The information should include the total metallic nickel purchased (in lbs/yr), and the nickel content in purchased plating solutions used for nickel sulfate, nickel chloride, nickel sulfamate and other types of nickel plating operations. Indicate the nickel in inventory at the beginning of the reporting period and the nickel remaining in inventory at the end of the reporting period;
4. The purchase records for cadmium used in cadmium electroplating operations for the preceding 12 months. The information should include the total cadmium purchased (in lbs/yr), and the cadmium content in purchased plating solutions used for cadmium cyanide, cadmium sulfate, and other types of cadmium plating operations. Indicate the cadmium in inventory at the beginning of the reporting period and the cadmium remaining in inventory at the end of the reporting period;
5. The purchase records for lead used in lead electroplating operations for the preceding 12 months. The information should include the total lead purchased (in lbs/yr), and the lead content in purchased plating solutions used for lead sulfamate, lead acetate, and other types of lead plating operations. Indicate the lead in inventory at the beginning of the reporting period and the lead remaining in inventory at the end of the reporting period;
6. The purchase records for copper used in copper electroplating operations for the preceding 12 months. The information should include the total copper purchased (in lbs/yr), and the copper content in purchased plating solutions used for all cuprous and cupric plating operations. Indicate the copper in inventory at the beginning of the reporting period and the copper remaining in inventory at the end of the reporting period;
7. For each rectifier with a dedicated ampere*hour meter used at a nickel, cadmium, lead or copper electroplating tank, the preceding twelve months of operating data (ampere*hours) in monthly and annual totals;

8. A description of all new permit applications filed for new electroplating or process tanks and for air pollution control equipment since the Initial Compliance Report was submitted;
9. The distance from the property line of the facility to residences and sensitive receptor locations within 25 meters from the facility, for any new residence or sensitive receptor since the Initial Compliance Report was submitted;
10. The name, title, and signature of the responsible official certifying the accuracy of the reported information; and,
11. The date of the report.